

Title (en)  
HEAT EXCHANGER ASSEMBLY

Title (de)  
WÄRMETAUSCHERANORDNUNG

Title (fr)  
DISPOSITIF ÉCHANGEUR THERMIQUE

Publication  
**EP 3477238 B1 20240410 (DE)**

Application  
**EP 18201379 A 20181019**

Priority  
DE 102017124912 A 20171025

Abstract (en)  
[origin: US2019118617A1] A mixing device for an exhaust system of an internal combustion engine includes a mixing section (14) with a mixing section inlet area (20) to be positioned downstream in relation to a reactant introduction device (20) and with a mixing section outlet area (22) to be positioned upstream in relation to a catalytic converter device (16). The mixing section (14) includes an inner wall (26) surrounding an inner volume (28), through which exhaust gas (A) or/and reactant (R) can flow, and an outer wall (24) surrounding the inner wall (26). An outer volume (30), having a ring shape surrounding the inner volume is formed between the inner wall (26) and the outer wall (24). An electrically energizable heating device (34) is provided at the inner wall (26), or/and a heat transfer rib formation (54) is provided at the inner wall (26).

IPC 8 full level  
**F28F 27/02** (2006.01); **B60H 1/22** (2006.01); **F24H 9/20** (2022.01); **F28D 7/12** (2006.01); **H01H 37/04** (2006.01)

CPC (source: EP KR RU US)  
**B60H 1/00792** (2013.01 - KR); **B60H 1/22** (2013.01 - RU); **B60H 1/2209** (2013.01 - EP KR US); **F28D 7/06** (2013.01 - KR); **F28D 7/12** (2013.01 - EP US); **F28F 9/002** (2013.01 - KR); **F28F 27/02** (2013.01 - EP US); **B60H 2001/2246** (2013.01 - EP US); **B60H 2001/2256** (2013.01 - EP US); **B60H 2001/2268** (2013.01 - KR); **B60H 2001/2271** (2013.01 - EP US); **B60H 2001/2278** (2013.01 - EP US)

Designated contracting state (EPC)  
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